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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/436,219	11/09/1999	AKIRA NAGAE	104721	6312

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EXAMINER

BURCH, MELODY M

ART UNIT

PAPER NUMBER

3683

DATE MAILED: 09/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/436,219

Applicant(s)

NAGAE ET AL.

Examiner

Melody M. Burch

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 August 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-6 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification fails to provide support for the limitation of the first parameter quantity exceeding a threshold value predetermined thereof "so as to counteract a further increase of the rolling amount by the deceleration of the vehicle" as claimed in lines 3-4 from the bottom of the claim.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re: claim 1. The phrase "so as to increase from a predetermined minimum value to a predetermined maximum value" in lines 8-9 is indefinite. It is unclear to the Examiner as to which parameter is being increased. Examiner suggests rephrasing the

language to read --so as to increase the X from a predetermined minimum value to a predetermined maximum value-- replacing X with the appropriate parameter.

Re: claim 1. The phrase "a target deceleration" in line 11 is indefinite. It is unclear to the Examiner whether the "target deceleration" in line 11 is different or the same as that claimed in line 7.

Re: claim 1. The phrase "the deceleration" in line 3 from the bottom is indefinite. It is unclear to the Examiner whether the deceleration in line 3 from the bottom is the overall deceleration of the vehicle or specifically the target deceleration. Examiner recommends using consistent terminology to avoid confusion.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Halasz et al. in view of Harada et al. (JP 10-278762) (corresponding to U.S. Harada et al. 6081761 throughout the office action for column and line numbers).

Re: claims 1 and 7. Halasz et al. disclose a control device capable of being used for controlling an over-rolling of a vehicle having a vehicle body, wheels, a steering system, and a brake system, the device comprising: a means for providing a first parameter quantity indicative of a rolling amount of the vehicle body or roll angle (y-axis)

Art Unit: 3683

as disclosed in col. 6 lines 12-13,15,16, a means for providing a second parameter quantity of a change rate (a second change rate or acceleration (y-axis)) of the rolling amount of the vehicle body as disclosed in col. 6 lines 39-41, and a means for controlling or generating a control signal (actuation of one vehicular safety device) when the first parameter quantity exceeds a threshold value as disclosed in col. 7 lines 18-19, the control being increased (activation of another vehicular safety device) according to an increase of the second parameter quantity or acceleration (y-axis) as disclosed in col. 7 lines 36-46, but does not disclose that the control means is target deceleration and that the vehicular safety device is a vehicle braking system used specifically for controlling vehicle over-rolling. Harada et al. teach in the last four lines of the abstract the use of a brake controlling device utilizing target deceleration control to prevent over-rolling of a vehicle. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the control means and vehicle safety devices associated with the first and second parameters of Halasz et al. to have included the prevention of over-rolling of a vehicle, as taught by Harada et al., in order to provide a means of improving overall vehicle stability.

Re: claim 2. Halasz et al., as modified, teach a means for providing a first parameter quantity of a change rate of a rolling amount of a vehicle body or lateral acceleration. See Harada et al. col. 13 lines 48-51.

7. Claim 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent to Halasz et al. and Harada et al. as applied to claim 1, and further in view of Ikemoto et al. Ikemoto et al. teach in col. 3 line 28 the use of the rate of change

Art Unit: 3683

of the steering angle in the control of vehicle over-roll. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the second parameter quantity indicative of a change rate of the variable amount of the vehicle body of Halasz et al., as modified, to have included a rate of change of the steering angle, as taught by Ikemoto et al., in order to provide an alternate parameter for triggering the necessary target deceleration control.

8. Claims 1, 2, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 10-278762 to Harada et al. (corresponding to U.S. Harada et al. 6081761 throughout the office action for column and line numbers) in view of Halasz et al.

Re: claims 1 and 7. Harada et al. show in figure 1 a device for controlling an over-rolling of a vehicle 1 having a vehicle body, wheels WRR,WRL,WFR,WFL, a steering system 40,42, and a brake system 2 and wheel brakes as disclosed in col. 6 lines 10-11, the device comprising: a means or lateral acceleration sensor 34 (with which a roll amount may be obtained to the same extent as Applicant's) for providing a first parameter quantity indicative of a rolling amount of the vehicle body, a means or steering wheel angle sensor 42 (with which a change rate of a roll amount may be obtained to the same extent as Applicant's) for providing a second parameter quantity of a change rate of the rolling amount of the vehicle body, and a means 66 for calculating a target deceleration (or control resulting from the activation of a vehicular safety device) of the vehicle based upon a calculating scheme, and means ECU 28 for controlling the brake system (the vehicular safety device) such that the brake system is

Art Unit: 3683

actuated to accomplish a target deceleration when a parameter quantity exceeds a threshold valued predetermined thereof as disclosed in col. 13 lines 48-50.

Halasz et al. teach a device capable of being used for controlling over-rolling of a vehicle comprising a means for providing a first parameter quantity indicative of a rolling amount of the vehicle body or roll angle (y-axis) as disclosed in col. 6 lines 12-13,15,16, a means for providing a second parameter quantity of a change rate (a second change rate or acceleration (y-axis)) of the rolling amount of the vehicle body as disclosed in col. 6 lines 39-41, and a means for controlling (or generating control resulting from the activation of one vehicular safety device) when the first parameter quantity exceeds a threshold value as disclosed in col. 7 lines 18-19, the control being increased (activation of another vehicular safety device) according to an increase of the second parameter quantity or acceleration (y-axis) as disclosed in col. 7 lines 36-46. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the target deceleration calculating scheme of Harada et al. such that it based the calculation of a target deceleration (or control resulting from activation of a vehicular safety device) upon a second parameter quantity so as to increase from a predetermined minimum value to a predetermined maximum value along with an increase of the second parameter quantity and accomplished a target deceleration when the first parameter quantity exceeds a threshold value predetermined thereof, in view of the teachings of Halasz et al., in order to provide a means of ensuring the activation of sufficient vehicular safety device control (or target deceleration in the case

Art Unit: 3683

of Harada et al.) to protect the passenger(s) and vehicle against over-rolling under changing or more demanding vehicle conditions.

Re: claim 2. Harada et al., as modified, teach a means for providing a first parameter quantity estimated to be substantially proportional to lateral acceleration.

See Harada et al. col. 8 lines 17-18 and col. 13 lines 48-51.

9. Claim 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harada et al. in view of Halasz et al. and as applied to claim 1 above, and further in view of Ikemoto et al. Ikemoto et al. teach in col. 3 line 28 the use of the rate of change of the steering angle in the control of vehicle over-roll. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the second parameter quantity indicative of a change rate of the variable amount of the vehicle body of Harada et al., as modified, to have included a rate of change of the steering angle, as taught by Ikemoto et al., in order to provide an alternate parameter for triggering the necessary target deceleration control.

Allowable Subject Matter

10. Claims 3, 5, and 6 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

11. Applicant's arguments filed 8/23/02 have been fully considered but they are not persuasive.

With regard to the 112 first rejection, Examiner notes that Applicant incorrectly states in the Remarks that claim 1 does not contain the "so as to counteract a further increase of the rolling amount by the deceleration of the vehicle" language. The rejection has been maintained since the language is still present in lines 3-4 from the bottom of the claim.

With regard to the rejections on the merits, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Examiner reiterates that it is the combination of Halasz in view Harada that teaches the claimed invention. It was explained that the motivation to combine the references was based on the fact that both references monitor over-rolling parameters to determine the activation of a vehicular safety device and that the combination merely included the modification of the vehicular safety device of Halasz with the vehicular safety device of Harada which is a vehicle braking system achieving a target deceleration.

12. Applicant's arguments with respect to claims 1, 2, and 4 have been considered but are moot in view of the new ground(s) of rejection (Harada in view of Halasz).

Conclusion

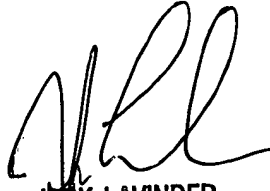
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 703-306-4618. The examiner can normally be reached on Monday-Friday (7:30 AM-4:00 PM).

Art Unit: 3683

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on 703-308-3421. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

mmb 9/25/02
mmb
September 25, 2002


JACK LAVINDER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600
9/26/02